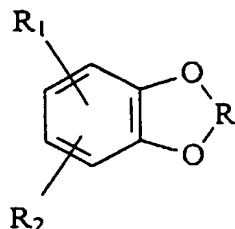


CLAIMS

1. A process for the hydroxylation of aromatic compounds containing a heterocyclic system having general formula (I):



(I)

wherein R represents a C₁-C₄ (iso)alkylene radical, whereas R₁ and R₂, the same or different, represent a hydrogen atom or a CH₃ radical, or a C₁-C₂ alkoxy, which comprises directly hydroxylating said compounds having general formula (I) with H₂O₂ in the presence of a zeolitic catalyst having general formula (II):



wherein x is a number ranging from 0.0001 to 0.04, preferably from 0.01 to 0.025.

2. The process according to claim 1, wherein the zeolitic catalyst is used with a particle size ranging from 1 to 1000 μm, preferably from 5 to 100 μm, or in the form of pellets.

3. The process according to claim 1 or 2, wherein in the product having general formula (I), R is a methylene radical whereas R₁ and R₂ are two hydrogen atoms.

25 4. The process according to any of the previous claims,

wherein the hydroxylation reaction is carried out in the presence of one or more solvents or directly in mass by feeding hydrogen peroxide, optionally diluted with H₂O, to a suspension of catalyst in the substrate.

5 5. The process according to claim 4, wherein the solvent is selected from:

- aliphatic alcohols, in particular C₁-C₁₀ linear, branched or cyclic alcohols;
- linear, branched or cyclic aliphatic ketones, with a
10 number of carbon atoms ranging from 3 to 12;
- linear, branched or cyclic saturated aliphatic hydrocarbons with a number of carbon atoms ranging from 5 to 12;
- esters selected from dialkyl carbonates wherein the
15 alkyl group contains from 1 to 4 carbon atoms, and esters of carboxylic acid having the formula CH₃-COO-R' wherein R' represents a C₁-C₄ radical;
- linear, branched or cyclic aliphatic ethers, with a number of carbon atoms ranging from 3 to 12;
- 20 - aliphatic nitriles having the formula R''-CN, wherein R'' represents a C₁-C₄ alkyl radical.

6. The process according to any of the previous claims, wherein the catalyst is used in batch reactions, in concentrations, with respect to the substrate, ranging from 1 to
25 50% by weight.

7. The process according to any of the claims from 1 to 5, wherein the reaction is carried out in continuous, feeding hydrogen peroxide and the substrate on a layer of catalyst or by passing the reagents through a fixed bed of catalyst in the form of pellets.

8. The process according to any of the previous claims, wherein the H_2O_2 reagent is used in an aqueous solution with concentrations ranging from 1 to 60% by weight.

9. The process according to any of the previous claims, wherein the molar ratio H_2O_2 /substrate varies from 0.01 to 0.5, preferably from 0.1 to 0.3.

10. The process according to any of the previous claims, wherein the oxidation reaction is carried out at a temperature ranging from 10 to 100°C, preferably from 40 to 80°C.

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